

Serial No.: 09/404,940

Attorney Docket No: MCS-023-01

**REMARKS**

In response to the final Office Action dated March 17, 2004 (Paper No. 21), claims 1 and 19 have been amended and claim 31 has been canceled. Moreover, new claim 32 has been added. Upon entering of this amendment, therefore, claims 1, 4-29 and 32 will be in the case. The Applicant respectfully requests that this amendment be entered under 37 C.F.R. 1.116 to place the above-referenced application in condition for allowance or, alternatively, in better condition for appeal. Reexamination and reconsideration of the amended application are requested.

**Rebuttal to Examiner's Response to Amendments and Arguments**

In section 5 of the Office Action, it was stated that features on which the Applicant's arguments rely are not recited in the claims: "[I]n response to applicant's remarks that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., '... suggestions as to how the image's score could be improved by manipulating visual elements in the images' (specification, page 14, lines 9-12' ... are not recited in the rejected claims."

Applicant respectfully disagrees. However, in an effort to further the prosecution of the subject application and to make even clearer that the act of "generating recommendation to improve the aesthetic score" is not found in the cited art, the Applicant has amended claim 1 to include material of dependent claim 31. Specifically, amended claim 1 now recites the feature of "generating a recommendation that suggests how to improve the aesthetic score for the image by manipulating visual elements of the image."

In light of the amendment to claim 1 and the arguments below, the Applicant respectfully maintains that amended independent claim 1 is patentable over the cited art. Moreover, claims 4-8 depend from amended independent claim 1 and are also nonobvious over the cited art (MPEP § 2143.03). Accordingly, the Applicant respectfully requests the allowance of claims 1 and 4-8.

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The Applicant also has amended independent claim 19 to recite more specifically how the visual elements are manipulated. In particular, claim 19 recites the feature of "generating a recommendation that suggests which visual elements of the image to manipulate to improve the corresponding aesthetic score, wherein the visual elements are capable of being manipulated by a computer."

The Applicant respectfully maintains that amended independent claim 19 also is patentable over the cited art. Moreover, claims 20, 21 and 32 depend from amended independent claim 19 and are also nonobvious over the cited art (MPEP § 2143.03). Accordingly, the Applicant respectfully requests the allowance of claims 19-21 and 32.

#### Section 103(a) Rejections

The Office Action rejected claims 1, 4-29 and 31 under 35 U.S.C. § 103(a) as being unpatentable over Jagielski in a paper entitled, "An Application of Neural Networks to Emulation of Aesthetic Judgments" in view of a Yasuda et al. in a paper entitled "Application of Neural Network to Aesthetic Design of Bridges". The Office Action contended that Jagielski discloses all elements of the Applicant's claimed invention except that "the art fails to explicitly disclose the generation of a recommendation to improve the aesthetic score." However, the Office Action stated that Yasuda et al. "teaches of generating a recommendation to improve an aesthetic score for the image by evaluating the end results and compiling a recommendation that can be applied to a design to improve the projects (see sections 5-6 on pages 540-541, especially section 6 on page 541)." Therefore, the Office Action asserted that it would have been obvious to one of ordinary skill in the art to combine the teachings of Jagielski and Yasuda et al. arrive at the Applicant's claimed invention.

In response, the Applicant respectfully traverses these rejections based on the amendments to claims 1 and 19 and the following legal and technical analysis. The Applicant submits that the combination of Jagielski and Yasuda et al. lacks the material claimed feature of generating a recommendation to improve the aesthetic score for the image.

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### Examiner's Rationale

Both the Examiner and the Applicant agree that Jagielski does not teach the Applicant's claimed feature of "generating a recommendation to improve the aesthetic score for the image." The issue is whether Yasuda et al. teach this feature.

In response to the Applicant's previous arguments, the Office Action stated in section 7 that Yasuda et al. "clearly teaches of evaluating the end results and compiling a recommendation that can be applied to a design to improve a project . . ."

### Applicant's Arguments

Each of the independent claims 1, 9, 13, 19, 22 and 25 includes the claimed feature of "generating a recommendation to improve the aesthetic score for the image." Yasuda et al. lack this claimed feature.

Applicant respectfully maintains that the improvement feature of Yasuda et al. is *different* from the Applicant's claimed feature. Namely, in Yasuda et al., a neural network is being improved; conversely, in the Applicant's claimed invention, the aesthetic score of an image is being improved.

More specifically, Yasuda et al. merely teach improving a neural network's ability to distinguish what constitutes high aesthetic value. In section 6 of Yasuda et al., they state that their contribution is to improve the assessment of a bridge's aesthetic value by using a refined neural network. Specifically, they state that a method for "the quantitative assessment of landscape design of girder and arch bridges was developed . . ." Moreover, the "method can be improved to be more practical by using a refined neural network and combining it with an expert system."

Yasuda et al. teach improving the ability of a neural network to distinguish between high and low aesthetic values. The system is specific to examining bridges.

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However, no recommendations or suggestions are made by Yasuda et al. about how to improve an aesthetic score of a bridge being examined.

The Applicant's claimed invention generates suggestions about how to improve the aesthetic score of an image being examined. Improving a neural network's ability to determine whether a bridge has high aesthetic value (as taught in Yasuda et al.) is different from using a neural network together in the Applicant's claimed invention to generate recommendations about how to improve an aesthetic score for an image being examined.

Thus, in Yasuda et al., the neural network is being improved; in the Applicant's claimed invention, the aesthetic score of an image is being improved.

The Applicant, therefore, submits that obviousness cannot be established since the combination of Jagielski and Yasuda et al. does not teach, disclose, suggest or provide any motivation for the Applicant's claimed feature of generating a recommendation to improve the aesthetic score for the image. Accordingly, the Applicant respectfully submits that independent claims 1, 9, 13, 19, 22 and 25 are patentable under 35 U.S.C. § 103(a) over Jagielski in view of Yasuda et al. based on amendments to claims 1 and 19 and the legal and technical arguments set forth above and below. Moreover, claims 4-8 depend from amended independent claim 1, claims 9-12 depend from independent claim 9, claims 14-18 depend from independent claim 13, claims 20, 21 and 32 depend from amended independent claim 19, claims 23 and 24 depend from independent claim 22, and claims 26-29 depend from independent claim 25 and are also nonobvious over Jagielski in view of Yasuda et al. (MPEP § 2143.03). The Applicant, therefore, respectfully requests reexamination, reconsideration and withdrawal of the rejections and allowance of claims 1, 4-29 and 32.

#### Conclusion

In view of the arguments set forth above, the Applicant submits that claims 1, 4-29 and 32 of the subject application are in condition for immediate allowance. The

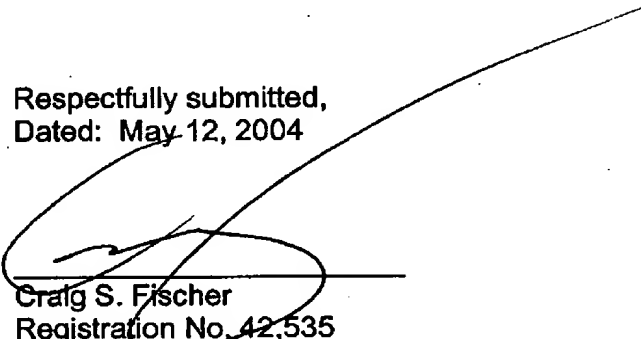
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Examiner is respectfully requested to withdraw the outstanding rejections of these claims and to pass this application to issue.

In an effort to expedite and further the prosecution of the subject application, the Applicant kindly invites the Examiner to telephone the Applicant's attorney at (805) 278-8855 if the Examiner has any comments, questions or concerns, wishes to discuss any aspect of the prosecution of this application, or desires any degree of clarification of this response.

Respectfully submitted,  
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